

REMARKS

In view of the above amendments and the following remarks, reconsideration of the rejections and further examination are requested.

I. Amendments to the Claims

Independent claims 19 and 22 have been amended to further distinguish the claimed invention from the reference relied upon in the rejection discussed below. Support for these amendments can be found, at least, in Figs. 1, 10 and 12 and paragraphs [0031]-[0041] and [0051]-[0055] of the originally filed specification.

Dependent claims 20 and 21 have also been amended to remain consistent with amended independent claim 19.

II. 35 U.S.C. § 102 Rejection

Claims 19-22 were rejected under 35 U.S.C. § 102(e) as being anticipated by O'Neil (U.S. 7,012,612). This rejection is believed clearly inapplicable to amended independent claims 19 and 22 and the claims that depend therefrom for the following reasons.

Amended independent claim 19 recites an apparatus for controlling a screen resource that is required to display a screen on a display. Specifically, claim 19 recites the following features:

- (a) a screen information saving section including a memory for saving attribute information of the screen, the attribute information including a size of the screen and residence information indicating whether the screen is in a resident state or a non-resident state;
- (b) a screen resource saving section for saving the screen resource;

- (c) a screen control section for generating, using the attribute information of the screen saved in the screen information saving section, a screen resource to be used for generating a screen to be displayed on the display, and for saving the generated screen resource in the screen resource saving section;
- (d) an instruction section receiving an instruction to switch a screen currently displayed on the display to another screen;
- (e) a screen discard determination section for determining whether or not to discard the screen resource of the currently displayed screen when the currently displayed screen is switched to the another screen;
- (f) wherein, when the instruction section receives the instruction to switch the screen currently displayed on the display to the another screen, the screen control section saves, in the screen information saving section, attribute information corresponding to the another screen and saves, in the screen resource saving section, a screen resource of the another screen generated using the attribute information corresponding to the another screen; and
- (g1) wherein, when the screen discard determination section determines, based on attribute information of the currently displayed screen and the attribute information corresponding to the another screen, that (i) the currently displayed screen is completely hidden by the another screen, and (ii) the attribute information of the currently displayed screen indicates that the currently displayed screen is in the resident state indicating that the screen resource of the currently displayed screen is to invariably remain in a generated state, the screen control section displays, using the screen resource of the another screen, the another screen on the display without

discarding the screen resource of the currently displayed screen from the screen resource saving section; and

(g2) wherein, when the screen discard determination section determines, based on the attribute information of the currently displayed screen and the attribute information corresponding to the another screen, that (iii) the currently displayed screen is completely hidden by the another screen, and (iv) the attribute information of the currently displayed screen indicates that the currently displayed screen is in the non-resident state, the screen control section displays, using the screen resource of the another screen, the another screen on the display and discards the screen resource of the currently displayed screen from the screen resource saving section.

According to the structure required by above-mentioned features (a), (c), (f), (g1) and (g2), only unnecessary screen resources are deleted from the screen resource saving section and the screen indicating the resident state can be displayed using the screen resource saved in the screen resource saving section, such that, for example, by setting residence information included in the attribute information of a screen that is frequently used to a resident state, it is possible to improve the screen display speed when the screen is switched to the frequently used screen.

Initially, the Applicants note that col. 5, lines 53-55 of O'Neil were relied upon for teaching the previously recited limitations related to feature (g1). However, in view of the above-mentioned amendments to claim 19, it is submitted that O'Neil fails to disclose or suggest features (g1) and (g2) as recited in amended claim 19.

Rather, col. 5, lines 53-55 of O'Neil merely teach that “[a] tile image is typically used for a window background area. These images are typically reused any time the visible portion of the

window is changed, and so have a high re-use probability. Sometimes such re-use may be provided for by the caching of backing store pixmaps.”

Additionally, in order to clarify the above-noted portion of O’Neil, the Applicants note that col. 5, lines 20-31 (emphasis added) of O’Neil state that “[i]n the X-server, images that are more likely to be re-used include backing store pixmaps, non-backing-store pixmaps, tile images, and font character images. A backing store pixmap is used by the X-server to store a temporarily obscured portion of a window’s image (e.g., when the window is obscured by another window being moved across it, or by a temporary window such as a menu). As the obscured portion is likely to be obscured only temporarily, there is a high likelihood that it would need to be re-used. In this application, it should be understood that ‘backing store pixmaps’ describe pixmaps that are used to provide both backing store and save under images.”

In view of the above-mentioned disclosures of O’Neil, it is submitted that O’Neil merely suggests a configuration in which, when a tile image is used as a background image and when a window displayed on this background image is changed, the tile image constituting the portion of the background image that has been hidden by the window is saved as a pixmap.

Thus, in view of the above, it is clear that O’Neil teaches saving the portion of the background image that has been hidden by the window as a pixmap, but fails to disclose or suggest above-mentioned distinguishing features (g1) and (g2) of claim 19, which require the determination of whether or not the currently displayed screen is completely hidden by the another screen.

Moreover, the Applicants note that col. 10, lines 40-50 of O’Neil were relied upon for teaching features related to the “attribute of the currently displayed screen,” as previously recited in claim 19. However, col. 10, lines 40-50 of O’Neil merely teach that the quality rating of the

image is determined based on (i) a probability factor assigned to the class of the image, (ii) an amount of time since the image was last used, (iii) a number of times the image has been drawn onto a display, (iv) a size of the image, (v) a ratio of an area of a valid region of the image to an entire area of the image, and (vi) a ratio of an area of a constant region to an entire area of the image.

Thus, in view of the above, even though O’Neil teaches that each of above-mentioned factors (i)-(vi) are taken into consideration when determining a quality rating, O’Neil still fails to disclose or suggest above-mentioned feature (a) of claim 19, which requires the attribute information to include a size of the screen and residence information indicating whether the screen is in a resident state or a non-resident state.

Furthermore, the Applicants note that Fig. 3 and col. 7, lines 50-55 of O’Neil, which were relied upon for disclosing features related to the previously recited “receiving of the instruction,” merely teach determining whether or not to cache a new image.

Thus, in view of the above, it is submitted that O’Neil merely teaches that a determination is made as to whether or not to cache a new image, but fails to disclose or suggest above-mentioned feature (f) of claim 19, which recites that when the instruction section receives the instruction to switch the screen currently displayed on the display to the another screen, the screen control section saves, in the screen information saving section, attribute information corresponding to the another screen and saves, in the screen resource saving section, a screen resource of the another screen generated using the attribute information corresponding to the another screen.

Therefore, because of the above-mentioned distinctions it is believed clear that claim 19 and claims 20 and 21 that depend therefrom are not anticipated by O’Neil.

Additionally, in light of the discussion above, O'Neil does not provide the above-mentioned result of the structure required by claim 19, because O'Neil fails to disclose or suggest above-mentioned distinguishing features (a), (c), (f), (g1) and (g2), as recited in claim 19.

Specifically, O'Neil fails to disclose or suggest that only unnecessary screen resources are deleted from the screen resource saving section and the screen indicating the resident state can be displayed using the screen resource saved in the screen resource saving section, such that, for example, by setting residence information included in the attribute information of a screen that is frequently used to a resident state, it is possible to improve the screen display speed when the screen is switched to the frequently used screen (resulting from the structure required by claim 19), because O'Neil merely teaches saving the portion of the background image that has been hidden by the window as a pixmap and determining whether or not to cache a new image.

Furthermore, there is no disclosure or suggestion in O'Neil or elsewhere in the prior art of record which would have caused a person of ordinary skill in the art to modify O'Neil to obtain the invention of amended independent claim 19. Accordingly, it is respectfully submitted that amended independent claim 19 and claims 20 and 21 that depend therefrom are clearly allowable over the prior art of record.

Amended independent claim 22 is directed to a method and recites features that correspond to the above-mentioned distinguishing features of amended independent claim 19. Thus, for the same reasons discussed above, it is respectfully submitted that claim 22 is allowable over the prior art of record.

III. Conclusion

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance and an early notification thereof is earnestly requested. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

Ken YAMASHITA et al.

/Andrew L. Dunlap/

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Andrew L. Dunlap

Registration No. 60,554

Attorney for Applicants

ALD/led
Washington, D.C. 20005-1503
Telephone (202) 721-8200
Facsimile (202) 721-8250
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